

# Ceramic RF Chip Inductors

PE-0402CL Series



- Ⓢ Monolithic inorganic material construction
- Ⓢ Low DC resistance, high Q Values at high frequency
- Ⓢ High Self Resonant Frequency
- Ⓢ Industry Standard 0402 (1005) Surface Mount Land Pattern
- Ⓢ Operational temperature -55°C to +125°C

## Electrical Specifications @ 25°C - Operating Temperature -40°C to +85°C

Part Number	Inductance <sup>1</sup> (nH)	Standard Tolerance	Q <sup>2</sup> (Min.)	Test Frequency (MHz)	SRF <sup>3</sup> (MHz MIN)	R <sub>dc</sub> <sup>4</sup> (Ω MAX)	I <sub>bc</sub> <sup>5</sup> (mA MAX)
PE-0402CL1N0STT	1.0	±0.3nH (S)	8	100	10000	0.1	400
PE-0402CL1N2STT	1.2	±0.3nH (S)	8	100	10000	0.1	400
PE-0402CL1N5STT	1.5	±0.3nH (S)	8	100	6000	0.1	300
PE-0402CL1N8STT	1.8	±0.3nH (S)	8	100	6000	0.1	300
PE-0402CL2N0STT	2.0	±0.3nH (S)	8	100	6000	0.2	300
PE-0402CL2N2STT	2.2	±0.3nH (S)	8	100	6000	0.2	300
PE-0402CL2N7STT	2.7	±0.3nH (S)	8	100	6000	0.2	300
PE-0402CL3N3STT	3.3	±0.3nH (S)	8	100	6000	0.2	300
PE-0402CL3N6STT	3.6	±0.3nH (S)	8	100	4000	0.2	300
PE-0402CL3N9STT	3.9	±0.3nH (S)	8	100	4000	0.2	300
PE-0402CL4N7STT	4.7	±0.3nH (S)	8	100	4000	0.2	300
PE-0402CL5N6STT	5.6	±0.3nH (S)	8	100	4000	0.3	300
PE-0402CL6N2STT	6.2	±0.3nH (S)	8	100	3900	0.3	300
PE-0402CL6N8JTT	6.8	±5% (J)	8	100	3900	0.3	300
PE-0402CL7N5JTT	7.5	±5% (J)	8	100	3700	0.4	300
PE-0402CL8N2JTT	8.2	±5% (J)	8	100	3600	0.4	300
PE-0402CL100JTT	10	±5% (J)	8	100	3200	0.4	300
PE-0402CL120JTT	12	±5% (J)	8	100	2700	0.5	300
PE-0402CL150JTT	15	±5% (J)	8	100	2300	0.5	300
PE-0402CL180JTT	18	±5% (J)	8	100	2100	0.5	300
PE-0402CL220JTT	22	±5% (J)	8	100	1900	0.6	300
PE-0402CL270JTT	27	±5% (J)	8	100	1600	0.7	300
PE-0402CL330JTT	33	±5% (J)	8	100	1300	0.8	200

## Mechanical Specification - Dimension in mm

Part Number	Inductance <sup>1</sup> (nH)	Standard Tolerance	Q <sup>2</sup> (Min.)	Test Frequency (MHz)	SRF <sup>3</sup> (MHz MIN)	Rdc <sup>4</sup> (Ω MAX)	Ibc <sup>5</sup> (mA MAX)
PE-0402CL470JTT	47	±5% (J)	8	100	1000	1.1	200
PE-0402CL560JTT	56	±5% (J)	8	100	750	1.2	200
PE-0402CL680JTT	68	±5% (J)	8	100	750	1.4	180
PE-0402CL820JTT	82	±5% (J)	8	100	750	2.4	150
PE-0402CL101JTT	100	±5% (J)	8	100	700	2.6	150
PE-0402CL121JTT	120	±5% (J)	8	100	600	2.8	150

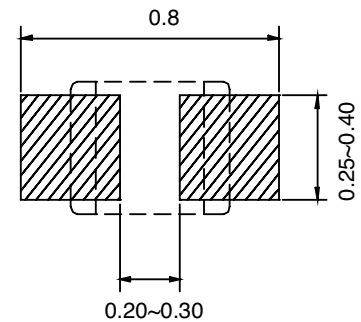
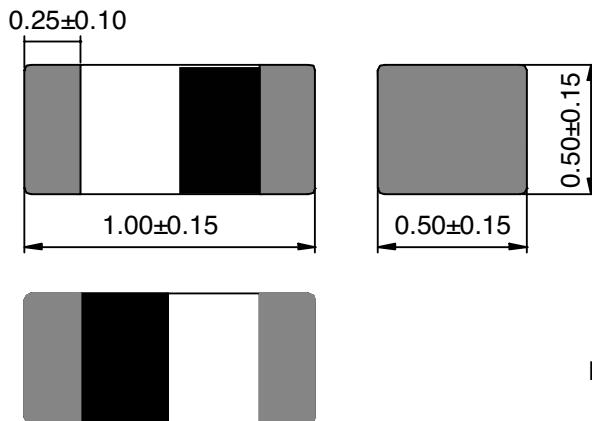
**Notes:**

- Inductance measured using a HP4286A RF Impedance Analyzer. (Please note that inductance information is not stamped on part, because of the extremely small size).
- Q measured using a HP4291A RF Impedance Analyzer with a HP16193A Test Fixture.
- SRF measured using a HP8753C Network Analyzer.
- RDC measured using a Valhalla Scientific model 4100 ATC Digital Ohm meter.
- Based on a 15°C maximum temperature rise.

### Mechanical

### Schematic

#### 0402CL Series



Dimensions:  $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified, all tolerances are  $\pm \frac{0.10}{0.25}$

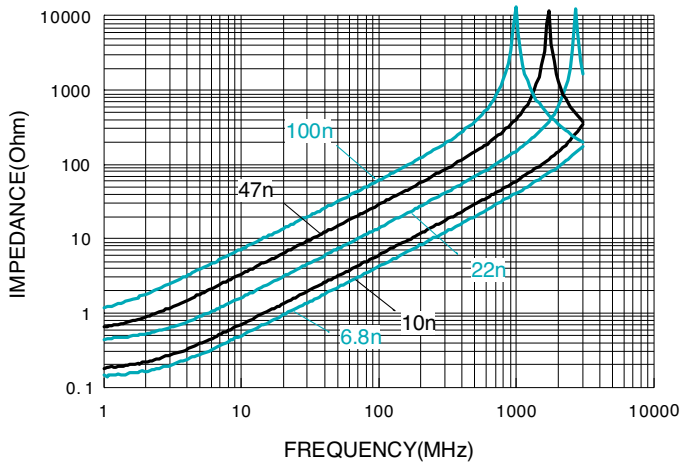
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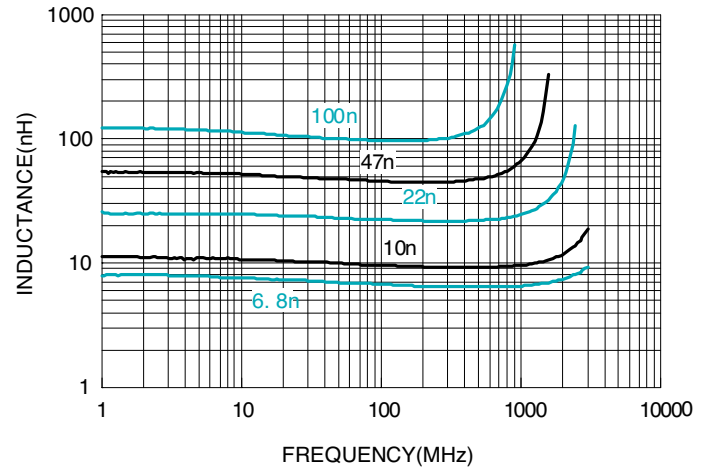
## Characteristic Graphs

0402CL Series

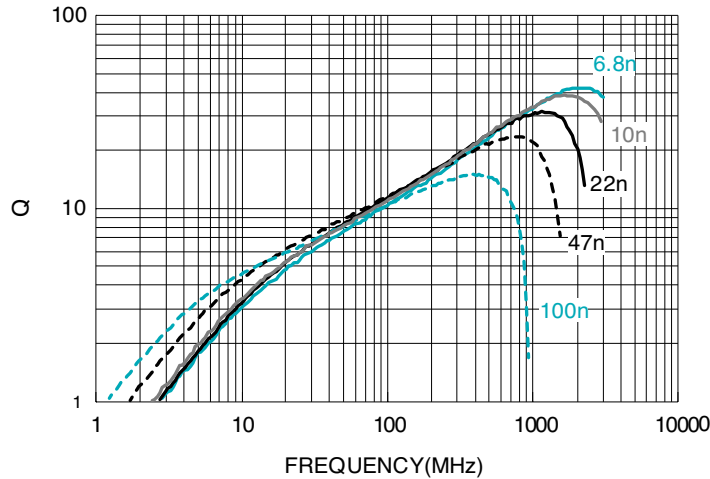
### Impedance v.s. Frequency Characteristics



### Inductance v.s. Frequency Characteristics



### Q v.s. Frequency Characteristics



### For More Information:

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